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OIPE

RAW SEQUENCE LISTING DATE: 12/06/2001 PATENT APPLICATION: US/09/834,792 TIME: 15:11:32

Input Set : A:\Figsl-5.txt

Output Set: N:\CRF3\12062001\1834792.raw 4 <110> APPLICANT: Mount Sinai School of Medicine of NYU 6 <120> TITLE OF INVENTION: TRP8, A TRANSIENT RECEPTOR POTENTIAL CHANNEL EXPRESSED IN TASTE RECEPTOR CELL 10 <130> FILE REFERENCE: AP32911 070165.0589 12 <140> CURRENT APPLICATION NUMBER: 09/834,792 13 <141> CURRENT FILING DATE: 2001-04-13 15 <150> PRIOR APPLICATION NUMBER: 60/197,491 16 <151> PRIOR FILING DATE: 2000-04-17 ENTERED 18 <160> NUMBER OF SEQ ID NOS: 5 20 <170> SOFTWARE: FastSEQ for Windows Version 4.0 22 <210> SEQ ID NO: 1 23 <211> LENGTH: 4157 24 <212> TYPE: DNA 25 <213> ORGANISM: Murine TRP8 cDNA 27 <400> SEOUENCE: 1 28 cagetacatg ccattaatet ggaaggaacg ggeaggaaag ceaceatgea aacaaceeag 60 29 agctcctgcc ccggcagccc cccagatact gaggatggct gggagcccat cctatgcagg 120 30 qqaqaqatca acttcggagg gtctgggaag aagcgaggca agtttgtgaa ggtgccaagc 180 31 agtgtggccc cctctgtgct ttttgaactc ctgctcaccg agtggcacct gccagccccc 240 32 aacctggtgg tgtccctggt gggtgaggaa cgacctttgg ctatgaagtc gtggcttcgg 300 33 gatgteetge geaagggget ggtgaaagea geteagagea eaggtgeetg gateetgaee 360 34 agtgccctcc acgtgggcct ggcccgccat gttggacaag ctgtacgtga tcactctctg 420 35 gctagcacat ccaccaagat ccgtgtagtg gccatcggaa tggcctctct ggatcgaatc 480 36 cttcaccqtc aacttctaga tggtgtccac caaaaggagg atactcccat ccactaccca 540 37 gcagatgagg gcaacattca gggacccctc tgccccctgg acagcaatct ctcccacttc 600 38 atccttqtqq agtcaggcgc ccttgggagt gggaacgacg ggctgacaga gctgcagctg 660 39 agectggaga ageacatete teageagagg acaggttatg ggggeaceag etgeateeag 720 40 atacctgtcc tttgcctgtt ggtcaatggt gaccccaaca ccctagagag gatttccagg 780 41 gcagtggagc aggctgccc atggctgatc ctggcaggtt ctggtggcat tgctgatgta 840 42 ctcqctqccc tqqtqaqcca qcctcatctc ctqqtqcccc aggtqgctga gaagcagttc 900 43 agaqaqaaat teeccaqega gtqtttetet tgggaageea ttgtacaetg gacagagetg 960 44 ttacaqaaca ttgctqcaca cccccacctg ctcacagtat atgacttcga gcaggagggt 1020 45 teggaggace tggacactgt catecteaag geacttgtga aageetgeaa gageeacage 1080 46 caagaageee aagactaeet agatgagete aagttageag tggeetggga tegegtggae 1140 47 attgccaaga qtqaaatctt caatqqqqac qtqqaatqqa agtcctgtga cttgqaaqag 1200 48 gtgatqacag atgccctcgt gagcaacaag cctgactttg tccgcctctt tgtggacagc 1260 49 ggtgctgaca tggccgagtt cttgacctat gggcggctgc agcagcttta ccattctgtg 1320 50 tececeaaga geeteetett tgaactgetg eagegtaage atgaggaggg taggetgaea 1380 51 ctggccggcc tgggtgccca gcaggctcgg gagctgccca ttggtctgcc tgccttctca 1440 52 ctccacqaqq tctcccgcqt actcaaaqac ttcctqcatg acgcctgccg tggcttctac 1500

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112
           35
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	Pro		Val	Leu	Phe	Glu		Leu	Leu	Thr	Glu		His	Leu	Pro	Ala
114		50			_		55			_ •		60	_			
		Asn	Leu	Val	Val		Leu	Val	Gly	Glu		Arg	Pro	Leu	Ala	
116		_	_	_	_	70		_	_	_	<u>75</u>	_		_		80
	Lys	Ser	Trp	Leu	_	Asp	Val	Leu	Arg		GLy	Leu	Val	Lys		Ala
118	-: -	_			85	_		_		90		_	•		95	_
	Gln	Ser	Thr		Ala	Trp	IIe	Leu		Ser	Ala	Leu	His		GLY	Leu
120				100					105	_		_	_	110	_	
	Ala	Arg		Val	GLY	Gln	Ala	Val	Arg	Asp	His	Ser		Ala	Ser	Thr
122		_	115	_		_	_	120					125			
	Ser		Lys	He	Arg	Val		Ala	He	GLY	Met		Ser	Leu	Asp	Arg
124		130	•	_		_	135	_			•	140	_		_	
		Leu	His	Arg	GIn		Leu	Asp	GIY	Val		GIn	Lys	GIu	Asp	
	145			_	_	150	_		_ •	_	155			_	_	160
	Pro	Ile	His	Tyr		Ala	Asp	Glu	Gly		Ile	Gln	GLY	Pro		Cys
128					165			•		170	_	_		_	175	
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	Leu	-		Gly	Asn	Asp	Gly	Leu	Thr	Glu	Leu	Gln		Ser	Leu	Glu
132			195		_	_		200	_				205			_
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	Glu	Arg	Ile	Ser	_	Ala	Val	Glu	Gln		Ala	Pro	Trp	Leu		Leu
138	_	_		_	245	_	_		_	250		_		_	255	
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	Pro	His		Leu	Val	Pro	GIn	Val	Ala	GIu	Lys	GIn		Arg	GLu	Lys
142		_	275		_			280				-	285	_		
	Phe		Ser	Glu	Cys	Phe		Trp	GLu	Ala	TTE		His	Trp	Thr	Glu
144	_	290	~ 3	_			295	•	_		_	300	-1	1	_	_
		Leu	GIn	Asn	TTE		Ala	His	Pro	His		Leu	Thr	vaı	Tyr	_
	305		~ 3	- 3		310	-1	_	_	_	315			_	_	320
	Phe	GLu	GIn	GIU		Ser	GLu	Asp	Leu		Thr	Val	TTe	Leu		Ala
148	•	1	_		325	.			a	330	01	. 1 -	01	•	335	T
	Leu	vaı	ьys		Cys	ràs	Ser	His		Ģīn	Glu	Ala	GIn		Tyr	Leu
150			_	340	_				345	_	_			350		_
	Asp	Glu		Lys	Leu	Ala	val	Ala	Trp	Asp	Arg	Val	_	TTE	Ala	ràs
152	_		355	_,	_		_	360		_	_	_	365	_	_	- 3
	Ser		IIe	Phe	Asn	GTÄ		Val	GIu	Trp	Lys		Cys	Asp	Leu	GIu
154	~1	370		_,	_		375		_	_	_	380	_	_,		_
		Val	Met	Thr	Asp		Leu	Val	Ser	Asn		Pro	Asp	Phe	Val	
156		DI.	77- 3		~ -	390	. 1 -				395	Dl -	.	m t	m	400
	ьeu	Pne	val	Asp		GТĀ	Ата	Asp	Met		GLU	Pne	ьeu	rnr	_	GTÅ
158	3 -		د م	a 2	405	m -	** !	~ .	**- 3	410	n -	. .	~ .	. .	415	D 1
	Arg	Leu	GIn		Leu	Tyr	HIS	Ser		ser	Pro	гĀг	ser		Leu	ьиe
160	a 1	_	_	420				~ 1	425	<i>a</i> 2		. .	m1	430		a 1.
101	GLu	Leu	Leu	GIn	Arg	Lys	His	Glu	GLu	Gly	Arg	Leu	Thr	Leu	Ala	GLY

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Input Set : A:\Figs1-5.txt
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163	160			425					440					445			
164	162	-	01	435	01	a 1		3	440	T	D	-1 -	01	445	D		Dl
165 Ser Leu His Glu Val Ser Arg Val Leu Lys Asp Phe Leu His Asp Ala Affo Aff		ьeu	_	Ата	GIn	GIN	Ala	_	GIU	Leu	Pro	тте	_	Leu	Pro	Ala	Pne
166 465		_		·			_			_	_	_		_	1		
167 Cys Arg Gly Phe Tyr Gln Asp Gly Arg Arg Met Glu Glu Arg Gly Pro 168			Leu	His	GIu	Val		Arg	Val	Leu	Lys	_	Phe	Leu	His	Asp	
168																-: -	
169		Cys	Arg	Gly	Phe		GIn	Asp	GLY	Arg		Met	GLu	Glu	Arg		Pro
170							_	_									
171 Ser Glu Asp Pro Trp Arg Asp Leu Pro Leu Trp Ala Val Leu Gln Asp Asp Trp Sis		Pro	Lys	Arg		Ala	GTA	Gln	Lys	_	Leu	Pro	Asp	Leu		Arg	Lys
172																	
173 Arg Tyr Glu Met Ala Thr Tyr Phe Trp Ala Met Gly Arg Glu Gly Val 174	171	Ser	Glu	_	Pro	Trp	Arg	Asp		Phe	Leu	Trp	Ala		Leu	Gln	Asn
174																	
175	173	Arg	_	Glu	Met	Ala	Thr	_	Phe	\mathtt{Trp}	Ala	Met	_	Arg	Glu	Gly	Val
176			_														
177 Glu Lys Glu Ala Glu Val Ala Arg Thr Met Arg Glu Ala Lys Tyr Glu 565 570 575 570 575 575 570 575	175	Ala	Ala	Ala	Leu	Ala	Ala	Cys	Lys	Ile	Ile	Lys	Glu	Met	Ser	His	Leu
178																	
179 Gln Leu Ala Leu Asp Leu Phe Ser Glu Cys Tyr Gly Asn Ser Glu Asp Ser Trp Ser Arg Thr Ser Ser Ser Ser Arg Thr Ser Ser Ser Arg Thr Ser Ser Ser Arg Thr Ser Ser Ser Arg Thr Ser	177	Glu	Lys	Glu	Ala	Glu	Val	Ala	Arg	Thr	Met	Arg	Glu	Ala	Lys	Tyr	Glu
180	178					565					570					575	
181 Arg Ala Phe Ala Leu Leu Val Arg Arg Arg Arg His Ser Trp Ser Arg Thr G00 600 605 605 605 605 605 600 6	179	Gln	Leu	Ala	Leu	Asp	Leu	Phe	Ser	Glu	Cys	Tyr	Gly	Asn	Ser	Glu	Asp
182 Fig. 183 Fig. 184 Fig. 185 Fig.	180			٠	580					585					590		
183 Thr Cys Leu His Leu Ala Thr Glu Ala Asp Ala Lys Ala Phe Phe Ala 184 610 615 620 640 620 660 660 630 635 655 640 640 640 640 665 655 655 655 655 655 655 655 655 665 665 665 665 665 670 670 610 610 690 660 665 665 665 670 670 670 610 680 670 670 610 620 695 695 695 695 695 695 <td>181</td> <td>Arg</td> <td>Ala</td> <td>Phe</td> <td>Ala</td> <td>Leu</td> <td>Leu</td> <td>Val</td> <td>Arg</td> <td>Arg</td> <td>Asn</td> <td>His</td> <td>Ser</td> <td>${\tt Trp}$</td> <td>Ser</td> <td>Arg</td> <td>Thr</td>	181	Arg	Ala	Phe	Ala	Leu	Leu	Val	Arg	Arg	Asn	His	Ser	${\tt Trp}$	Ser	Arg	Thr
184 610	182			595					600					605			
185 His of the color of the co	183	Thr	Cys	Leu	His	Leu	Ala	Thr	Glu	Ala	Asp	Ala	Lys	Ala	Phe	Phe	Ala
186 625	184		610					615					620				
187 Ala Thr Gly Thr Pro Ile Leu Arg Leu Gly Ala Phe Thr Cys Pro 188 — 645 — 650 — — 655 — 655 — 655 — 655 — 655 — 655 — 655 — 655 — 655 — 655 — 650 — 655 — 655 — 670 — 61n 690 — 670 — 670 — 670 — 670 — 670 — 670 — 670 — 670 — 680 — 685 — Leu 685 — 685 — 685 — 685 — 685 — 685 — 685 — 690 — 700 — 700 — 700 — 700 — 700 — <td>185</td> <td>His</td> <td>Asp</td> <td>Gly</td> <td>Val</td> <td>Gln</td> <td>Ala.</td> <td>Phe</td> <td>Leu</td> <td>Thr</td> <td>Lys</td> <td>Ile</td> <td>Trp</td> <td>${\tt Trp}$</td> <td>Gly</td> <td>Asp</td> <td>Met</td>	185	His	Asp	Gly	Val	Gln	Ala.	Phe	Leu	Thr	Lys	Ile	Trp	${\tt Trp}$	Gly	Asp	Met
188	186	625					630					635					640
189 Ala Leu Ile Tyr Thr Asn Leu Ile Ser Phe Ser Glu Asp Ala Pro Glu Asp Leu Glu Asp Met Glu Glu Asp Leu Glu Asp Met Glu Asp Asp Met Asp Asp <td>187</td> <td>Ala</td> <td>Thr</td> <td>Gly</td> <td>Thr</td> <td>Pro</td> <td>Ile</td> <td>Leu</td> <td>Arg</td> <td>Leu</td> <td>Leu</td> <td>Gly</td> <td>Ala</td> <td>Phe</td> <td>Thr</td> <td>Cys</td> <td>Pro</td>	187	Ala	Thr	Gly	Thr	Pro	Ile	Leu	Arg	Leu	Leu	Gly	Ala	Phe	Thr	Cys	Pro
190	188					645					650					655	
191 Arg Met Asp Leu Glu Asp Leu Gln Glu Pro Asp Ser Leu Asp Met Glu 192 - 675 - 675 - 685 - 680 - 680 - 685	189	Ala	Leu	Ile	Tyr	Thr	Asn	Leu	Ile	Ser	Phe	Ser	Glu	Asp	Ala	Pro	Gln
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194 690	192			675					680					685			
195 Ala Pro Arg Ala Pro Gly Asp Leu Gly Pro Gln Ala Ala Phe Leu Leu 196 705	193	Lys	Ser	Phe	Leu	Cys	Ser	Arg	Gly	Gly	Gln	Leu	Glu	Lys	Leu	Thr	Glu
196 705	194		690					695					700				
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200 Leu Val Asp Phe Arg Pro Pro Pro Gln Gly Pro Ser Gly Ser Glu Val 202 755 To 765 To	198					725					730					735	
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202 755 760 765 765 165 166 176 186 1	200				740	_				745					750		
202 755 760 765 765 165 166 176 186 1	201	Leu	Val	Asp	Phe	Arg	Pro	Pro	Pro	Gln	Gly	Pro	Ser	Gly	Ser	Glu	Val
204 770 775 775 780 780 780 780 780 780 780 780 780 780						_					_						
204 770 775 775 780 780 780 780 780 780 780 780 780 780	203	Thr	Leu	Tyr	Phe	Trp	Val	Phe	Thr	Leu	Val	Leu	Glu	Glu	Ile	Arq	Gln
205 Gly Phe Phe Thr Asp Glu Asp Thr His Leu Val Lys Lys Phe Thr Leu 790 75 795 795 795 800 800 800 800 800 800 800 800 800 80						-										_	
206 785 790 795 800 207 Tyr Val Glu Asp Asn Trp Asn Lys Cys Asp Met Val Ala Ile Phe Leu 208 805 810 815 209 Phe Ile Val Gly Val Thr Cys Arg Met Val Pro Ser Val Phe Glu Ala			Phe	Phe	Thr	Asp	Glu	Asp	Thr	His	Leu	Val	Lys	Lys	Phe	Thr	Leu
207 Tyr Val Glu Asp Asn Trp Asn Lys Cys Asp Met Val Ala Ile Phe Leu 208 805 810 815 815 819 Phe Ile Val Gly Val Thr Cys Arg Met Val Pro Ser Val Phe Glu Ala		_				-		-					-	-			
208 805 810 815 209 Phe Ile Val Gly Val Thr Cys Arg Met Val Pro Ser Val Phe Glu Ala			Val	Glu	Asp	Asn		Asn	Lys	Cys	Asp		Val	Ala	Ile	Phe	
209 Phe Ile Val Gly Val Thr Cys Arg Met Val Pro Ser Val Phe Glu Ala		-					•		-	•							
		Phe	Ile	Val	Gly		Thr	Cys	Arq	Met		Pro	Ser	Val	Phe		Ala
	210				820			_	-	825					830		

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                                                860
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                                            875
217 Val Trp Leu Val Ala Tyr Gly Val Thr Thr Gln Ala Leu Leu His Pro
219 His Asp Gly Arg Leu Glu Trp Ile Phe Arg Arg Val Leu Tyr Arg Pro
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                                                        910
                900
221 Tyr Leu Gln Ile Phe Gly Gln Ile Pro Leu Asp Glu Ile Asp Glu Ala
           915
                                920
223 Arg Val Asn Cys Ser Leu His Pro Leu Leu Glu Ser Ser Ala Ser
                            935
                                                940
225 Cys Pro Asn Leu Tyr Ala Asn Trp Leu Val Ile Leu Leu Val Thr
                       950
                                          955
227 Phe Leu Leu Val Thr Asn Val Leu Leu Met Asn Leu Leu Ile Ala Met
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                                        970
229 Phe Ser Tyr Thr Phe Gln Val Val Gln Gly Asn Ala Asp Met Phe Trp
                980
                                    985
230
231 Lys Phe Gln Arg Tyr His Leu Ile Val Glu Tyr His Gly Arg Pro Ala
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                                                    1005
232
233 Leu Ala Pro Pro Phe Ile Leu Leu Ser His Leu Ser Leu Val Leu Lys .
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                                                1020
235 Gln Val Phe Arg Lys Glu Ala Gln His Lys Arg Gln His Leu Glu Arg
                       1030
                                            1035
237 Asp Leu Pro Asp Pro Leu Asp Gln Lys Ile Ile Thr Trp Glu Thr Val
                                        1050
                   1045
239 Gln Lys Glu Asn Phe Leu Ser Thr Met Glu Lys Arg Arg Arg Asp Ser
               1060
                                    1065
241 Glu Gly Glu Val Leu Arg Lys Thr Ala His Arg Val Asp Leu Ile Ala
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                                                    1085
           1075
243 Lys Tyr Ile Gly Gly Leu Arg Glu Gln Glu Lys Arg Ile Lys Cys Leu
                           1095
245 Glu Ser Gln Ala Asn Tyr Cys Met Leu Leu Ser Ser Met Thr Asp
                        1110
                                            1115
247 Thr Leu Ala Pro Gly Gly Thr Tyr Ser Ser Gln Asn Cys Gly Cys
                                        1130
                   1125
249 Arg Ser Gln Pro Ala Ser Ala Arg Asp Arg Glu Tyr Leu Glu Ser Gly
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                1140
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251 Leu Pro Pro Ser Asp Thr
252
           1155
257 <210> SEQ ID NO: 3
258 <211> LENGTH: 3000
259 <212> TYPE: DNA
260 <213> ORGANISM: human
262 <400> SEOUENCE: 3
263 atgcaggatg tccaaggccc ccgtcccgga agccccgggg atgctgaaga ccggcgggag 60
264 ctgggcttgc acaggggcga ggtcaacttt ggagggtctg ggaagaagcg aggcaagttt 120
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VERIFICATION SUMMARY

DATE: 12/06/2001

PATENT APPLICATION: US/09/834,792

TIME: 15:11:33

Input Set : A:\Figs1-5.txt

Output Set: N:\CRF3\12062001\1834792.raw